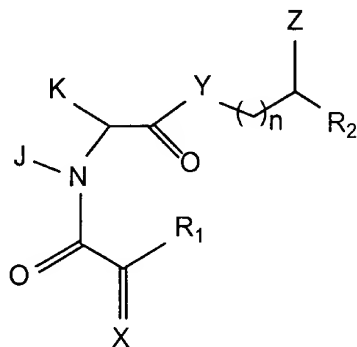


Claim 1. (Currently Amended) A method of treating a neurological activity in an animal, comprising:

administering to said animal an effective amount of a compound having an affinity for FKBP-type immunophilins according to formula I

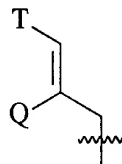


Formula I

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or a pharmaceutically acceptable salt thereof,

- wherein Y is CH₂, O, NH, or N-(C1-C4 alkyl);
- wherein Z and R₂ are independently Ar, (C5-C7)-cycloalkyl substituted (C1-C6)-straight or branched alkyl or alkenyl, (C5-C7)-cycloalkenyl substituted (C1-C6)-straight or branched alkyl or alkenyl, or Ar substituted (C1-C6)-straight or branched alkyl or alkenyl, wherein in each case, one or two carbon atoms of the straight or branched alkyl or alkenyl groups may be substituted with 1-2 heteroatoms selected from the group consisting of oxygen, sulfur, SO and SO₂ in chemically reasonable substitution patterns, or



D
C

- wherein Q is hydrogen, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl;
- wherein T is Ar or substituted 5-7 membered cycloalkyl with substituents at positions 3 and 4 which are independently selected from the group consisting of hydrogen, hydroxyl, O-(C1-C4)-alkyl or O-(C1-C4)-alkenyl and carbonyl;
- wherein Ar is selected from the group consisting of monocyclic and bicyclic heterocyclic aromatic ring systems with individual ring sizes being 5 or 6 which may contain in either or both rings a total of 1-4 heteroatoms independently selected from oxygen, nitrogen and sulfur; wherein Ar may contain one to three substituents which are independently selected from the group consisting of hydrogen, halo, hydroxyl, hydroxymethyl, nitro, CF₃, trifluoromethoxy, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl, O-(C1-C4)-straight or branched alkyl or O-(C1-C4)-straight or branched alkenyl, O-benzyl, O-phenyl, amino, 1,2-methylenedioxy, carbonyl and phenyl;
- wherein R₁ is either hydrogen or U; X is either oxygen or CH-U, provided that if R₁ is hydrogen, then X is CH-U, or if X is oxygen then R₁ is U;
- wherein U is hydrogen, O-(C1-C4)-straight or branched alkyl or O-(C1-C4)-straight or branched alkenyl, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl, (C5-C7)-cycloalkyl, (C5-C7)-cycloalkenyl substituted with (C1-C4)-straight or branched alkyl or (C1-C4)-straight or branched alkenyl, [(C1-C4)-alkyl or (C1-C4)-alkenyl]-Ar or Ar (Ar as described above);
- wherein J is hydrogen or C1 or C2 alkyl or benzyl; K is (C1-C4)-straight or branched alkyl, benzyl or cyclohexylethyl; or wherein J and K may be taken

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together to form a 5-7 membered heterocyclic ring which may contain an oxygen (O), sulfur (S), SO or SO₂ substituted therein;

- wherein n is 0-3; and

- wherein said neurological activity does not include amyotrophic lateral sclerosis.

Claim 2. (Original) The method of claim 1, wherein the neurological activity is selected from the group consisting of stimulation of damaged neurons, promotion of neuronal regeneration, prevention of neurodegeneration, and treatment of a neurological disorder.

Claim 3. (Original) The method of claim 2, wherein the neurological disorder is selected from the group consisting of peripheral neuropathies cause by physical injury or disease state, physical damage to the brain, physical damage to the spinal cord, stroke associated with brain damage, and neurological disorders relating to neurodegeneration.

Claim 4. (Original) The method of claim 3, wherein the neurological disorder is Alzheimer's Disease or Parkinson's Disease.

Claim 5. (Cancelled).

Claim 6. (Currently Amended) The method of claim ~~5~~ 1,

- wherein Z and R₂ are independently Ar, (C5-C7)-cycloalkyl substituted (C1-C6)-straight or branched alkyl or alkenyl, (C5-C7)-cycloalkenyl substituted (C1-C6)-straight or branched alkyl or alkenyl, or Ar substituted (C1-C6)-straight or branched alkyl or alkenyl, wherein in each case, one or two carbon atoms of the straight or branched alkyl or alkenyl groups may be substituted with 1-2

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heteroatoms selected from the group consisting of oxygen, sulfur, SO and SO₂ in chemically reasonable substitution patterns;

- wherein U is hydrogen, O-(C1-C4)-straight or branched alkyl or O-(C1-C4)-straight or branched alkenyl, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl, (C5-C7)-cycloalkenyl substituted with (C1-C4)-straight or branched alkyl or (C1-C4)-straight or branched alkenyl, [(C1-C4)-alkyl or (C1-C4)-alkenyl]-Ar or Ar; and

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- wherein Ar is selected from the group consisting monocyclic and bicyclic heterocyclic aromatic ring systems with individual ring sizes being 5 or 6 which may contain in either or both rings a total of 1-4 heteroatoms independently selected from oxygen, nitrogen and sulfur; wherein Ar may contain one to three substituents which are independently selected from the group consisting of hydrogen, halo, hydroxyl, hydroxymethyl, nitro, CF₃, trifluoromethoxy, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl, O-(C1-C4)-straight or branched alkyl or O-(C1-C4)-straight or branched alkenyl, O-benzyl, O-phenyl, amino, and 1,2-methylenedioxy.

Claim 7. (Original) The method of claim 6, wherein

- if X is O, Y is O, NH or N-(C1-C4 alkyl), R₁ is C1-C6 straight or branched alkyl, C2-C6 straight or branched alkenyl, C5-C7 cycloalkyl or cycloalkenyl substituted with C1-C4 straight or branched alkyl or C2-C4 straight or branched alkenyl, and Ar is 1-naphthyl, 2-naphthyl, indolyl, 2-furyl, 3-furyl, 2-thienyl, 3, thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, or phenyl

- then (CH₂)_nZ and R₂ taken together do not form:

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- 1) substituted or unsubstituted indolyl, 2-furyl, 3-furyl, thiazolyl, 2-thienyl, 3, thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, phenyl
- 2) an alkyl or alkenyl chain with substituted or unsubstituted indolyl, 2-furyl, 3-furyl, thiazolyl, 2-thienyl, 3, thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, phenyl
- 3) an alkyl or alkenyl chain substituted with C₅-C₇ cycloalkyl.

Claims 8-10. (Cancelled).

Claim 11. (Original) The method according to claim 1, further comprising co-administering to said animal an effective amount of a neurotrophic factor selected from the group consisting of nerve growth factor, brain derived growth factor, glial derived growth factor, ciliary neurotrophic factor, and neurotrophin-3.

Claim 12. (Original) The method of claim 11, wherein the neurological activity is selected from the group consisting of stimulation of damaged neurons, promotion of neuronal regeneration, prevention of neurodegeneration and treatment of a neurological disorder.

Claim 13. (Original) The method of claim 12, wherein the neurological disorder is selected from the group consisting of peripheral neuropathies caused by physical injury or disease state, physical damage to the brain, physical damage to the spinal cord, and neurological disorders relating to neurodegeneration.

Claim 14. (Original) The method of claim 12, wherein the neurological disorder is Alzheimer's Disease or Parkinson's Disease.

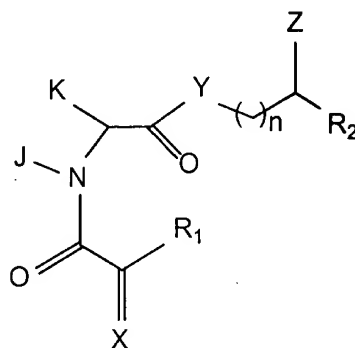
Claims 15-24. (Cancelled).

Claim 25. (Currently Amended) A method for promoting neuronal regeneration and growth in animals, comprising:

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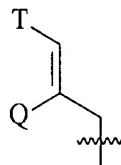
administering to said animal an effective amount of compound having an affinity for FKBP-type immunophilins according to formula I



Formula I

or a pharmaceutically acceptable salt thereof,

- wherein Y is CH₂, O, NH, or N-(C1-C4 alkyl);
- wherein Z and R₂ are independently Ar, (C5-C7)-cycloalkyl substituted (C1-C6)-straight or branched alkyl or alkenyl, (C5-C7)-cycloalkenyl substituted (C1-C6)-straight or branched alkyl or alkenyl, or Ar substituted (C1-C6)-straight or branched alkyl or alkenyl, wherein in each case, one or two carbon atoms of the straight or branched alkyl or alkenyl groups may be substituted with 1-2 heteroatoms selected from the group consisting of oxygen, sulfur, SO and SO₂ in chemically reasonable substitution patterns, or



- wherein Q is hydrogen, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl;

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- wherein T is Ar or substituted 5-7 membered cycloalkyl with substituents at positions 3 and 4 which are independently selected from the group consisting of hydrogen, hydroxyl, O-(C1-C4)-alkyl or O-(C1-C4)-alkenyl and carbonyl;
- wherein Ar is selected from the group consisting of monocyclic and bicyclic heterocyclic aromatic ring systems with individual ring sizes being 5 or 6 which may contain in either or both rings a total of 1-4 heteroatoms independently selected from oxygen, nitrogen and sulfur; wherein Ar may contain one to three substituents which are independently selected from the group consisting of hydrogen, halo, hydroxyl, hydroxymethyl, nitro, CF₃, trifluoromethoxy, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl, O-(C1-C4)-straight or branched alkyl or O-(C1-C4)-straight or branched alkenyl, O-benzyl, O-phenyl, amino, 1,2-methylenedioxy, carbonyl and phenyl;
- wherein R₁ is either hydrogen or U; X is either oxygen or CH-U, provided that if R₁ is hydrogen, then X is CH-U, or if X is oxygen then R₁ is U;
- wherein U is hydrogen, O-(C1-C4)-straight or branched alkyl or O-(C1-C4)-straight or branched alkenyl, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl, (C5-C7)-cycloalkyl, (C5-C7)-cycloalkenyl substituted with (C1-C4)-straight or branched alkyl or (C1-C4)-straight or branched alkenyl, [(C1-C4)-alkyl or (C1-C4)-alkenyl]-Ar or Ar (Ar as described above);
- wherein J is hydrogen or C1 or C2 alkyl or benzyl; K is (C1-C4)-straight or branched alkyl, benzyl or cyclohexylethyl; or wherein J and K may be taken together to form a 5-7 membered heterocyclic ring which may contain an oxygen (O), sulfur (S), SO or SO₂ substituted therein; and

- wherein n is 0-3.

Claim 26. (Original) The method of claim 25, further comprising co-administering an effective amount of a neurotrophic factor to promote neuronal regeneration selected from the group consisting of nerve growth factor, brain derived growth factor, glial derived growth factor, and neurotrophin-3.

Claim 27. (Cancelled).

Claim 28. (Currently Amended) The method of claim ~~27~~ 25,

- wherein Z and R₂ are independently Ar, (C5-C7)-cycloalkyl substituted (C1-C6)-straight or branched alkyl or alkenyl, (C5-C7)-cycloalkenyl substituted (C1-C6)-straight or branched alkyl or alkenyl, or Ar substituted (C1-C6)-straight or branched alkyl or alkenyl, wherein in each case, one or two carbon atoms of the straight or branched alkyl or alkenyl groups may be substituted with 1-2 heteroatoms selected from the group consisting of oxygen, sulfur, SO and SO₂ in chemically reasonable substitution patterns;

- wherein U is hydrogen, O-(C1-C4)-straight or branched alkyl or O-(C1-C4)-straight or branched alkenyl, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl, (C5-C7)-cycloalkenyl substituted with (C1-C4)-straight or branched alkyl or (C1-C4)-straight or branched alkenyl, [(C1-C4)-alkyl or (C1-C4)-alkenyl]-Ar or Ar; and

- wherein Ar is selected from the group consisting of monocyclic and bicyclic heterocyclic aromatic ring systems with individual ring sizes being 5 or 6 which may contain in either or both rings a total of 1-4 heteroatoms independently selected from oxygen, nitrogen and sulfur; wherein Ar may contain one to three

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substituents which are independently selected from the group consisting of hydrogen, halo, hydroxyl, hydroxymethyl, nitro, CF₃, trifluoromethoxy, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl, O-(C1-C4)-straight or branched alkyl or O-(C1-C4)-straight or branched alkenyl, O-benzyl, O-phenyl, amino, and 1,2-methylenedioxy.

Claim 29. (Original) The method of claim 28, wherein

- if X is O, Y is O, NH or N-(C1-C4 alkyl), R₁ is C1-C6 straight or branched alkyl, C2-C6 straight or branched alkenyl, C5-C7 cycloalkyl or cycloalkenyl substituted with C1-C4 straight or branched alkyl or C2-C4 straight or branched alkenyl, and Ar is 1-naphthyl, 2-naphthyl, indolyl, 2-furyl, 3-furyl, 2-thienyl, 3, thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, or phenyl

- then (CH₂)_nZ and R₂ taken together do not form:

- 1) substituted or unsubstituted indolyl, 2-furyl, 3-furyl, thiazolyl, 2-thienyl, 3, thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, phenyl
- 2) an alkyl or alkenyl chain with substituted or unsubstituted indolyl, 2-furyl, 3-furyl, thiazolyl, 2-thienyl, 3, thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, phenyl
- 3) an alkyl or alkenyl chain substituted with C5-C7 cycloalkyl.

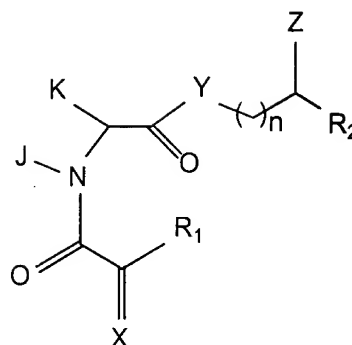
Claims 30-32. (Cancelled).

33. (Currently Amended) A method for stimulating the growth of damaged peripheral nerves, comprising:

administering to said damaged peripheral nerves an effective amount of a compound having an affinity for FKBP-type immunophilins according to formula I

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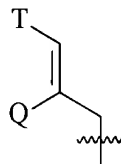
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Formula I

or a pharmaceutically acceptable salt thereof,

- wherein Y is CH₂, O, NH, or N-(C1-C4 alkyl);
- wherein Z and R₂ are independently Ar, (C5-C7)-cycloalkyl substituted (C1-C6)-straight or branched alkyl or alkenyl, (C5-C7)-cycloalkenyl substituted (C1-C6)-straight or branched alkyl or alkenyl, or Ar substituted (C1-C6)-straight or branched alkyl or alkenyl, wherein in each case, one or two carbon atoms of the straight or branched alkyl or alkenyl groups may be substituted with 1-2 heteroatoms selected from the group consisting of oxygen, sulfur, SO and SO₂ in chemically reasonable substitution patterns, or



- wherein Q is hydrogen, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl;
- wherein T is Ar or substituted 5-7 membered cycloalkyl with substituents at positions 3 and 4 which are independently selected from the group consisting of hydrogen, hydroxyl, O-(C1-C4)-alkyl or O-(C1-C4)-alkenyl and carbonyl;

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- wherein Ar is selected from the group consisting of monocyclic and bicyclic heterocyclic aromatic ring systems with individual ring sizes being 5 or 6 which may contain in either or both rings a total of 1-4 heteroatoms independently selected from oxygen, nitrogen and sulfur; wherein Ar may contain one to three substituents which are independently selected from the group consisting of hydrogen, halo, hydroxyl, hydroxymethyl, nitro, CF₃, trifluoromethoxy, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl, O-(C1-C4)-straight or branched alkyl or O-(C1-C4)-straight or branched alkenyl, O-benzyl, O-phenyl, amino, 1,2-methylenedioxy, carbonyl and phenyl;
- wherein R₁ is either hydrogen or U; X is either oxygen or CH-U, provided that if R₁ is hydrogen, then X is CH-U, or if X is oxygen then R₁ is U;
- wherein U is hydrogen, O-(C1-C4)-straight or branched alkyl or O-(C1-C4)-straight or branched alkenyl, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl, (C5-C7)-cycloalkyl, (C5-C7)-cycloalkenyl substituted with (C1-C4)-straight or branched alkyl or (C1-C4)-straight or branched alkenyl, [(C1-C4)-alkyl or (C1-C4)-alkenyl]-Ar or Ar (Ar as described above);
- wherein J is hydrogen or C1 or C2 alkyl or benzyl; K is (C1-C4)-straight or branched alkyl, benzyl or cyclohexylethyl; or wherein J and K may be taken together to form a 5-7 membered heterocyclic ring which may contain an oxygen (O), sulfur (S), SO or SO₂ substituted therein; and
- wherein n is 0-3.

Claim 34. (Original) The method of claim 33, further comprising co-administering an effective amount of a neurotrophic factor to stimulate growth of the damaged peripheral

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nerve selected from the group consisting of nerve growth factor, brain derived growth factor, glial derived growth factor, and neurotrophin-3.

Claim 35. (Cancelled).

Claim 36. (Currently Amended) The method of claim ~~35~~ 33,

- wherein Z and R₂ are independently Ar, (C5-C7)-cycloalkyl substituted (C1-C6)-straight or branched alkyl or alkenyl, (C5-C7)-cycloalkenyl substituted (C1-C6)-straight or branched alkyl or alkenyl, or Ar substituted (C1-C6)-straight or branched alkyl or alkenyl, wherein in each case, one or two carbon atoms of the straight or branched alkyl or alkenyl groups may be substituted with 1-2 heteroatoms selected from the group consisting of oxygen, sulfur, SO and SO₂ in chemically reasonable substitution patterns;
- wherein U is hydrogen, O-(C1-C4)-straight or branched alkyl or O-(C1-C4)-straight or branched alkenyl, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl, (C5-C7)-cycloalkenyl substituted with (C1-C4)-straight or branched alkyl or (C1-C4)-straight or branched alkenyl, [(C1-C4)-alkyl or (C1-C4)-alkenyl]-Ar or Ar; and
- wherein Ar is selected from the group consisting of monocyclic and bicyclic heterocyclic aromatic ring systems with individual ring sizes being 5 or 6 which may contain in either or both rings a total of 1-4 heteroatoms independently selected from oxygen, nitrogen and sulfur; wherein Ar may contain one to three substituents which are independently selected from the group consisting of hydrogen, halo, hydroxyl, hydroxymethyl, nitro, CF₃, trifluoromethoxy, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl, O-(C1-C4)-

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straight or branched alkyl or O-(C1-C4)-straight or branched alkenyl, O-benzyl,
O-phenyl, amino, and 1,2-methylenedioxy.

Claim 37. (Original) The method of claim 36, wherein

- if X is O, Y is O, NH or N-(C1-C4 alkyl), R₁ is C1-C6 straight or branched alkyl, C2-C6 straight or branched alkenyl, C5-C7 cycloalkyl or cycloalkenyl substituted with C1-C4 straight or branched alkyl or C2-C4 straight or branched alkenyl, and Ar is 1-naphthyl, 2-naphthyl, indolyl, 2-furyl, 3-furyl, 2-thienyl, 3, thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, or phenyl

- then (CH₂)_nZ and R₂ taken together do not form:

- 1) substituted or unsubstituted indolyl, 2-furyl, 3-furyl, thiazolyl, 2-thienyl, 3, thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, phenyl
- 2) an alkyl or alkenyl chain with substituted or unsubstituted indolyl, 2-furyl, 3-furyl, thiazolyl, 2-thienyl, 3, thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, phenyl
- 3) an alkyl or alkenyl chain substituted with C5-C7 cycloalkyl.

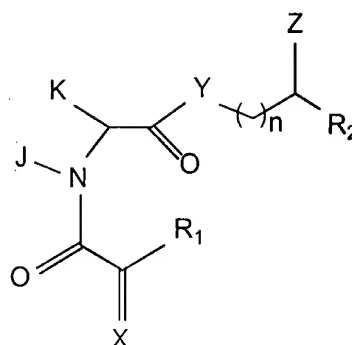
Claims 38-40. (Cancelled).

Claim 41. (Currently Amended) A method for stimulating neurite outgrowth by a nerve cell, comprising:

D- administering to said nerve cell an effective amount of compound having an affinity for FKBP-type immunophilins according to formula I

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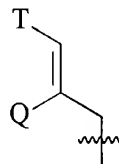
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or a pharmaceutically acceptable salt thereof,

- wherein Y is CH₂, O, NH, or N-(C1-C4 alkyl);
- wherein Z and R₂ are independently Ar, (C5-C7)-cycloalkyl substituted (C1-C6)-straight or branched alkyl or alkenyl, (C5-C7)-cycloalkenyl substituted (C1-C6)-straight or branched alkyl or alkenyl, or Ar substituted (C1-C6)-straight or branched alkyl or alkenyl, wherein in each case, one or two carbon atoms of the straight or branched alkyl or alkenyl groups may be substituted with 1-2 heteroatoms selected from the group consisting of oxygen, sulfur, SO and SO₂ in chemically reasonable substitution patterns, or



- wherein Q is hydrogen, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl;
- wherein T is Ar or substituted 5-7 membered cycloalkyl with substituents at positions 3 and 4 which are independently selected from the group consisting of hydrogen, hydroxyl, O-(C1-C4)-alkyl or O-(C1-C4)-alkenyl and carbonyl;

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- wherein Ar is selected from the group consisting of monocyclic and bicyclic heterocyclic aromatic ring systems with individual ring sizes being 5 or 6 which may contain in either or both rings a total of 1-4 heteroatoms independently selected from oxygen, nitrogen and sulfur; wherein Ar may contain one to three substituents which are independently selected from the group consisting of hydrogen, halo, hydroxyl, hydroxymethyl, nitro, CF₃, trifluoromethoxy, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl, O-(C1-C4)-straight or branched alkyl or O-(C1-C4)-straight or branched alkenyl, O-benzyl, O-phenyl, amino, 1,2-methylenedioxy, carbonyl and phenyl;
- wherein R₁ is either hydrogen or U; X is either oxygen or CH-U, provided that if R₁ is hydrogen, then X is CH-U, or if X is oxygen then R₁ is U;
- wherein U is hydrogen, O-(C1-C4)-straight or branched alkyl or O-(C1-C4)-straight or branched alkenyl, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl, (C5-C7)-cycloalkyl, (C5-C7)-cycloalkenyl substituted with (C1-C4)-straight or branched alkyl or (C1-C4)-straight or branched alkenyl, [(C1-C4)-alkyl or (C1-C4)-alkenyl]-Ar or Ar (Ar as described above);
- wherein J is hydrogen or C1 or C2 alkyl or benzyl; K is (C1-C4)-straight or branched alkyl, benzyl or cyclohexylethyl; or wherein J and K may be taken together to form a 5-7 membered heterocyclic ring which may contain an oxygen (O), sulfur (S), SO or SO₂ substituted therein; and
- wherein n is 0-3.

Claim 42. (Original) The method of claim 41, further comprising co-administering an effective amount of a neurotrophic factor to stimulating neurite outgrowth selected from

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the group consisting of nerve growth factor, brain derived growth factor, glial derived growth factor, and neurotrophin-3.

Claim 43. (Cancelled).

Claim 44. (Currently Amended) The method of claim ~~43~~ 41,

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- wherein Z and R₂ are independently Ar, (C5-C7)-cycloalkyl substituted (C1-C6)-straight or branched alkyl or alkenyl, (C5-C7)-cycloalkenyl substituted (C1-C6)-straight or branched alkyl or alkenyl, or Ar substituted (C1-C6)-straight or branched alkyl or alkenyl, wherein in each case, one or two carbon atoms of the straight or branched alkyl or alkenyl groups may be substituted with 1-2 heteroatoms selected from the group consisting of oxygen, sulfur, SO and SO₂ in chemically reasonable substitution patterns;
 - wherein U is hydrogen, O-(C1-C4)-straight or branched alkyl or O-(C1-C4)-straight or branched alkenyl, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl, (C5-C7)-cycloalkenyl substituted with (C1-C4)-straight or branched alkyl or (C1-C4)-straight or branched alkenyl, [(C1-C4)-alkyl or (C1-C4)-alkenyl]-Ar or Ar; and
 - wherein Ar is selected from the group consisting of monocyclic and bicyclic heterocyclic aromatic ring systems with individual ring sizes being 5 or 6 which may contain in either or both rings a total of 1-4 heteroatoms independently selected from oxygen, nitrogen and sulfur; wherein Ar may contain one to three substituents which are independently selected from the group consisting of hydrogen, halo, hydroxyl, hydroxymethyl, nitro, CF₃, trifluoromethoxy, (C1-C6)-straight or branched alkyl or (C1-C6)-straight or branched alkenyl, O-(C1-C4)-

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

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straight or branched alkyl or O-(C1-C4)-straight or branched alkenyl, O-benzyl, O-phenyl, amino, and 1,2-methylenedioxy.

Claim 45. (Original) The method of claim 44, wherein

- if X is O, Y is O, NH or N-(C1-C4 alkyl), R₁ is C1-C6 straight or branched alkyl, C2-C6 straight or branched alkenyl, C5-C7 cycloalkyl or cycloalkenyl substituted with C1-C4 straight or branched alkyl or C2-C4 straight or branched alkenyl, and Ar is 1-naphthyl, 2-naphthyl, indolyl, 2-furyl, 3-furyl, 2-thienyl, 3, thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, or phenyl

- then (CH₂)_nZ and R₂ taken together do not form:

- 1) substituted or unsubstituted indolyl, 2-furyl, 3-furyl, thiazolyl, 2-thienyl, 3, thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, phenyl
- 2) an alkyl or alkenyl chain with substituted or unsubstituted indolyl, 2-furyl, 3-furyl, thiazolyl, 2-thienyl, 3, thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, phenyl
- 3) an alkyl or alkenyl chain substituted with C5-C7 cycloalkyl.

Claims 46-48. (Cancelled).

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1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com